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ABSTRACT

Theory and research related to early adolescent sex role development needs to be addressed from both a life-span and an ecological perspective. A study was conducted to examine the development of female early adolescent sex role attitudes and behaviors in an ecological context as defined by Urie Bronfenbrenner. Data were the results of a state-wide survey of female early adolescents (N=154) and their parents conducted in Michigan in 1983. Youths were interviewed in their homes and parents responded to a questionnaire. Subjects were selected using a stratified multi-stage cluster sampling technique. Hierarchical multiple regression was used to both test early adolescent sex role attitude development and behavior development models. Only the model for female early adolescent sex role attitude development was significant. The level of traditionalism of female early adolescent sex role attitude development was significantly influenced by maternal employment, the level of traditionalism of the father's sex role attitudes in interaction with the amount of time he spent with his daughter, and chronological age. (Author/NB)

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# FEMALE EARLY ADOLESCENT SEX ROLE ATTITUDE AND BEHAVIOR DEVELOPMENT: A LIFE SPAN, ECOSYSTEM APPROACH

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ABSTRACT

This study examined the development of female early adolescent sex role attitudes and behaviors in an ecological context as defined by Urie Bronfenbrenner. Data were the results of a state-wide survey of early adolescents and their parents conducted in 1983. Youths were interviewed in their homes and parents responded to a questionnaire. Subjects were selected using a stratified multi-stage cluster sampling technique.

Hierarchical multiple regression was used to both test early adolescent sex role attitude development and behavior development models. Only the model for female early adolescent sex role attitude development was significant. The level of traditionalism of female early adolescent sex role attitude development was significantly influenced by maternal employment, the level of traditionalism of the father's sex role attitudes in interaction with the amount of time he spent with his daughter, and chronological age.

Female Early Adolescent Sex Role Attitude and Behavior Development: A Life-Span, Ecosystem Approach

In the past decade it has become increasingly clear that theory and research related to early adolescent sex role development needs to be addressed from both a life-span and an ecological perspective. Emmerich (1973), Worrell (1981, 1982) and Katz (1979), point out that sex role development must be examined from a life-span view since it is an on-going developmental process. Worrell (1981) discusses the tremendous amount of change over the past fifteen years in areas related to sex roles and discusses this in relationship to historical time, which is a major concept of the life-span perspective. Others interested in sex role development, from a variety of theoretical perspectives, illustrate the need to go beyond the traditional view of parents as the major models for their youths' sex role development and point out the need to examine a variety of other environments which influence this life-long process (Block, 1978; Constantinople, 1979; Katz, 1979; Hill, 1983).

The conceptual framework delimited by Bronfenbrenner (1979) is well suited to study of the environments that influence early adolescent sex role development. The addition of the concept of human variables, those intra-individual variables which also may influence the development of the individual, to Bronfenbrenner's schema of microsystem, mesosystem, exosystem, and macrosystem environments creates an ecosystem (Bubolz, Eicher, and Sontag, 1979; Hook and Paolucci, 1970) for study. It is especially important that human

system variables are included in the study of early adolescence and that pubertal age is one of the human system variables since the concept of early adolescence as a life-stage is based upon the overriding impact of puberty and its implications for the early adolescent.

Early Adolescent Sex Role Attitudes and Behaviors

Rust and Lloyd (1982), in their study of junior high students, found that youths still stereotype female and male characteristics. This stereotyping did not change by grade. This is contrary to the findings of Payne (1981). She found that female early adolescents were less likely to stereotype male and female roles, but that in general, the level of stereotyping was low and decreased as youths got older.

Human System

The major reason for conceptualizing early adolescence as a stage of development separate from childhood and adolescence is due in large part to the occurrence of puberty. Early adolescent scholars have as their premise, not always stated, that puberty is accompanied by both internal and external changes. Tanner (1978) discusses the relationship between puberty and the early adolescent shift from a concrete way of looking at the world to one of formal operations as described by Piaget and Inhelder (1969). This is an internal change with implications for how the early adolescent perceives the external world. Tanner (1978), states that "There seems every reason to suppose that Piaget's successive stages depend on progressive maturation or at least organization of the cortex (p. 79)." He implies that changes at puberty may be a factor in this maturation, but states that we must wait the results of future research. In

contrast, Petersen, Tobin-Richards, and Boxer (1983), in their analysis of the effect of pubertal stages on cognition, state, "Therefore, we do not feel that we have any strong evidence linking cognition and puberty.

The other side of the relationship between puberty and early adolescence is how the persons external to the early adolescent perceive the changing early adolescent and the effect puberty has on their interactions with the pubescent early adolescent (Petersen and Spiga, 1982). What is the reaction of parents, teachers, friends, and society to the developing adolescent? Hill and Lynch (1983) theorize that the pubertal changes during early adolescence lead to changes in the ways in which parents interact with their children. These changes, then, lead to changes in the way that the early adolescent behaves. With relation to sex roles, it is theorized that when parents perceive their adolescents as becoming men and women, they begin to interact with them in more sex differentiated ways than they did in the past. This leads to more stereotypic behavior on the part of the early adolescent. Preliminary reports from Steinberg and Hill (1978) confirm this for male early adolescents, but no work has been done on female early adolescents.

Microsystem

Parent-child dyads are part of the microsystem environment as defined by Bronfenbrenner (1979). Little research is available that examines the relationship between early adolescent sex role attitudes and behaviors and those of their parents. This is due to the fact that until recently, most sex role development research was based on the traditional identification, cognitive, and social learning theories. These theories limited their examination of development to

the early years of childhood. In one of the first early adolescent sex role development life-span perspective studies, Emmerich, Goldman, and Shore (1971) examined the relationship between early adolescents' sex role attitudes and those of their parents. They found a positive relationship between the attitudes of parents and those of their daughters. In studies of the antecedents of college students' sex role orientations, which have implications for behaviors, Orlofsky (1979) found that traditional sex typing occurred in girls when both parents modeled traditional sex role attributes in the context of a very close father-daughter relationship in the absence of cognitive or intellectual encouragment from the mother. Kelly and Worrell (1976) reported similar results; in females, cognitive or achievement encouragement and permissiveness were related to nontraditional sex role behaviors.

Exosystem

Bronfenbrenner defines an exosystem as a setting with which the human does not interact, but which has an influence upon his or her development nevertheless. Variables related to maternal employment are examples of exosystem variables. This set of variables is timely given the large numbers of mothers entering the work force over the past decade, and as such fit into the historical time concept of life-span studies. In the past decade, in families with children ages six to seventeen years, the rate of maternal employment rose from 49 percent to 61 percent.

Early adolescents with employed mothers consistently have been found to differentiate less in their sex role concepts (see review, Montemayor and Clayton, 1983). They are less likely to stereotype males and females and do not look at sex roles as narrowly as do early

adolescents of non-employed mothers. Daughters of employed mothers are more likely to be nontraditional in their sex role attitudes than are sons.

The effects of maternal employment on early adolescent sex role behaviors have been studied less often than have attitudes. Cogle, Tasker, and Morton (1982) found that adolescents with employed mothers spent more time on housework than did other adolescents (ages 12-17). Medrich, Roizen, Rubin, and Buckley (1982) found that daughters, not sons, do more housework when their mother is employed. Conversely, Dellas et al. (1979) found no differences between children of employed and non-employed mothers while Propper (1972) found that girls were more likely to do more housework whether their mother was employed or not. These findings are clearly mixed.

In the maternal employment literature, two major recommendations for research have emerged. The first is the examination of maternal employment as a proxy for a set of attitude variables (Rodgon, Gralewski, and Hetzel, 1977; Rollins and White, 1982). The second is the need to examine family variables related to maternal employment and their first or second order effects on it (Propper, 1972; Wallston, 1973). This recommendation is consistent with Bronfenbrenner's proposition related to second-order effects.

Research Questions

The following research questions were posed in an effort to understand the relationship between female early adolescent sex role development and its relationship to the environment:

1. What is the role of selected intra-indivual variables (human system) in female early adolescent sex role attitude and behavior development?

2. What is the role of selected parent-child variables (microsystem) in female early adolescent sex role attitude and behavior development?

3. What is the role of selected maternal employment variables (exosystem) in female early adolescent sex role attitude and behavior development?

4. What is the relationship between these subsystems and early adolescent female sex role attitudes and behaviors?

Selection of system variables was the outcome of both the literature review recommendations and specific variables dicussed by Bronfenbrenner (1979) in his propositions and hypotheses. The microsystem variables that define the development of a primary relationship, which affects learning were examined for their role in sex role attitude and behavior development. Generally, Bronfenbrenner states that when two people (a dyad) spend time together, they develop a close relationship which is influential in learning. Because in this study, both the time spent and the level of closeness take place in the context of the parents' sex role attitudes (shown to be important by Emmerich et al., 1971). The variables which examined these relationships were conceptually "crossed" at this point. The result of this conceptual interaction of the variables results in their later analysis as interaction variables.

## METHODS

### Sample

This report focuses on the one hundred fifty-four Michigan female early adolescents and their parents who volunteered their time to participate in the 1983 Michigan Early Adolescent Survey. A corresponding sample of males was also part of the study and are discussed in a separate report. Youths in the study were evenly

distributed over grades 5 through 8. Selection was based upon a stratified multi-stage cluster sampling technique which insured that all Michigan early adolescents living in homes had an equal probability of being selected. Using the stratifier "early adolescent" population, clusters were randomly assigned to counties in the state of Michigan. Two densely-populated counties, Wayne and Oakland, were assigned more interviews than could possibly be conducted with the support staff available in those areas. Consequently, substitutions were made from other Michigan counties based on similarity of demographic characteristics. The clusters were then randomly assigned to public and private school districts, which had been weighted according to their early adolescent population. Lists of youths in grades 5, 6, 7, and 8 were obtained, and one boy and girl from each grade were randomly selected. This sampling technique assured that all 5th through 8th grade youths in the state of Michigan had an equal probability of being selected for the study. A total of 304 youths were selected in the sample design. Because only 285 were subsequently interviewed due to the difficulty of completing interviews by the deadline, the data from the other youths in the same stratum as the missing respondents were weighted to account for those missing interviews.

Eighty-three percent of the respondents were white. Almost 16 percent were black, corresponding to the distribution of those racial backgrounds in the state of Michigan. The remaining families were hispanic and other ethnic groups. Over 30 percent of the families interviewed reported an annual family income of under $20,000. Another 30 percent reported a family income of $20,000 - $30,000 and still another 30 percent fell within the $30,000 - $50,000 range.

Four percent reported an annual income in excess of $50,000.

Many more of the adolescents in the sample lived with their natural mother (94.8%) than lived with their natural father (75.5%). Adoptive parents made up 2 percent of the mothers and 2.5 percent of the fathers. Stepparents made up 1.2 percent of the mothers and 4.7 percent of the fathers.

Over 60 percent of fathers and mothers reported having a high school education or having attended college (but not graduating). One-third of the fathers and one-fifth of the mothers were college graduates and/or had attended professional school. Two-thirds of the fathers and one-half of the mothers were in the age group 35-50 years of age; 17 percent of the fathers and 40 percent of the mothers were age 35 and under. Seventy percent of the fathers and 50 percent of the mothers were employed by others, most of them in skilled work, professional, or management positions. Twenty-eight percent of the mothers indicated that they did not work outside of the home.

When the sample was compared with a parallel 1980 census report on families with early adolescents, most demographic variables were of similar magnitude. Two differences were found; the parents in the MEAS sample were somewhat more educated and slightly older than the larger population.

Procedures

Using a stratified multi-stage cluster sample, counties, school districts, and finally, early adolescents were selected. Parents of the youths were contacted by phone to ascertain their family's interest in being a part of the study. Trained volunteers interviewed the early adolescents in their homes while their parents filled out questionnaires. Interviews took approximately one hour.

## Variables and Measures

Figure 1 shows the predictor and outcome variables examined in the study. Predictor variables were considered to be a part of the exosystem, the microsystem, or the human system. Scales and indexes which were constructed are discussed below.

### Outcome Variables

#### Early adolescent sex role attitudes scale

Scores for this scale were formed by totaling the differences between each of a set of parallel statements about important qualities for men and women reported by the early adolescent female. Examples are: How important is it for a man to be gentle? be educated? never cry? How important is it for a woman to be gentle? be educated? never cry? These qualities were defined as highly masculine or feminine by Broverman, Vogel, Clarkston, and Rosenkrantz in 1972. By examining the respondent's attachment of importance to these qualities, attitudes are measured. Responses ranged from very important to not important at all on a four point scale. The reliabilities for the masculine and feminine subscales were .63 and .67 respectively.

#### Early adolescent sex role behaviors scale

This scale was created examining early adolescent participation in eight household tasks and fourteen leisure activities that she liked to do or was interested in learning. The activities were coded traditional or non-traditional based on Medrich, Roizen, Ruben, and Buckley, 1982; Cogel, Tasker, and Morton, 1982; Dellas, Gaier, and Emihovich, 1979; Propper, 1972; Jones, 1981; and Eagly and Anderson, 1978. The scale had a reliability of .95.

Predictor Variables

Parents' sex role attitudes scales

This scale represents the absolute difference between a parent's responses to the masculine and feminine subscales. Subscales were developed from parents ratings of the importance of twelve qualities for their child. The qualities and response levels were the same as those used in the early adolescent sex role attitude scale. Subscale reliabilities ranged from .48 to .71.

Parents' perception of youths' pubertal age index

This index was based upon Tanner's (1978) work. It is an attempt to locate early adolescent females on a developmental continuum based upon physical body changes as rated by parents. As such, it measures parents' perceptions of their youth's pubertal age.

Parent-early adolescent time index

This index is the total of nine early adolescent responses as to how often activities were done with their parents. Examples of these activities are eating breakfast, going to sport events, watching TV, and doing homework together.

In addition, single item responses were used to indicate maternal employment, duration of maternal employment, father's attitude toward mother's work, child's report of closness to parent, and chronological age.

RESULTS

Descriptive Analyses: Outcome Variables

The level of traditionalism of sex role attitudes was clearly on the non-traditional end of the scale with a mean of .314 when the range was 0-1.25. The level of traditionalism of sex role behaviors, conversely, was in the middle of the scale, (x=.516, range 0-1)

indicating a wide range of levels of traditionalism in female early adolescent sex role behaviors.

## Descriptive Analyses: Predictor Variables

### Human System

Three-fourths of the sample were evenly distributed across the ages of eleven, twelve, and thirteen. The remaining one-fourth was divided between ages ten and fourteen. In general, one third of the parents agreed that their daughters were physically mature. However, fathers were more likely to rate their daughters who were not physically mature as less mature than were mothers. Eight percent of mothers assessed their daughters as physically children; twenty-five percent of fathers assessed their daughter's pubertal development at this level.

### Microsystem

Mothers and fathers were similar in their nontraditionalism of sex role attitudes and the amount of time that they spent with their daughters. The mean sex role traditionalism scores for mothers and fathers, respectively, were 2.178 and 1.97. The mean time spent with child index scores were 3.1 for mothers and 3.0 for fathers. Daughters reported positive feelings toward both parents, although they were more likely to report that they felt closer to their mothers than their fathers. Ninety-six percent of daughters reported feeling close or very close to their mothers. Eighty-eight percent reported this same level of closeness to their fathers.

### Exosystem Variables

Thirty-five percent of the mothers of female early adolescents were not employed; sixty-five percent were employed either full-time or part-time. Of those employed, almost one-half of the mothers had

been employed since before their daughter had entered school. The other half had entered the work force since that time.

Fathers were supportive of the mothers' work whether it was as full-time homemaker or employed. Ninety-one percent indicated that they were happy or somewhat happy with what their wives were doing.

Multiple Regression Analyses

Based upon a discussion by Cohen and Cohen (1975), hierarchical multiple regression was chosen to analyze the data due to the high level of multicollinearity found between the predictor variables. This multicollinearity was anticipated since some of the variables were created as interaction variables and since both parents' reports are part of the model. In addition, hierarchical multiple regression was chosen because of Bronfenbrenner's (1979) implication that the macrosystem permeates all other developmental systems and that developmental influence occurs in effect from the outside to the inside systems. The findings for the hierarchical multiple regression analyses can be found in Tables 1 and 2. They are based upon 83 cases. It is important to note that while there were several significant correlations, none had a higher correlation coefficient than .34.

Sex Role Attitudes

As shown in Table 1, almost twenty-two percent of the variance in the dependent variable level of traditionalism of female early adolescent sex role attitudes was accounted for in the multiple regression model. The overall F-ratio was 2.01058 which was significant ($p=0.044$). Almost half of the explained variance was accounted for by the exosystem variables (9.4%). The microsystem accounted for 6.6 percent of the variance in the dependent variable;

the human system accounted for 5.8 percent of that variance.

Three variables within the model achieved a probability of less than or equal to 0.10. Those were maternal employment (P=.012); the interaction (level of traditonalism of the father's sex role attitudes with the amount of time that the father spends with his daughter) (P=.100); and chronological age (p=.027). The variables accounted for 8 percent, 5 percent, and 3 percent of the variance in the dependent variable, respectively. Each predictor was inversely related to the level of traditionalism of female early adolescent sex role attitudes. This means that when mothers were employed and as the age of the girls increased, girls were more likely to be less traditional in their sex role attitudes.

Post hoc examination of the data for the meaning of the significant interaction variable produced the following observation. The group of daughters who spent the most time with their fathers held the least traditional attitudes, regardless of the level of traditionalism of the father's sex role attitudes.

It is interesting to note that three relationships which attained significance in hypothesis testing using Pearson correlations were not included in the model (see Table 3). These correlations were run on 95-154 cases. The three inverse relationships were father's attitude toward mothers's work (p=0.001), mother's level of traditionalism of sex role attitudes (p-0.032), and the interaction (mother's level of traditionalism of sex role attitudes and amount of time mothers spent with their daughters) (p=0.030). The higher the level of each of the variables, the less traditional were the daughters in their sex role attitudes. These findings have implications for the concept of maternal employment as a proxy and will be discussed later.

Sex Role Behaviors

The findings for the hierarchical multiple regression for sex role behaviors can be found in Table 2. This model was not significant ($p=0.299$) and had no individual variables which were significant at the alpha level of $<0.10$.

Three relationships were found to be significant in hypotheses testing using Pearson correlations, however. (See Table 3.) They were father's sex role attitudes ($p=0.014$); the interaction (level of traditionalism of the father's sex role attitudes with the amount of time that the father spends with his daughter) ($p=0.020$); and the father's perception of his daughter's pubertal age ($p=0.019$). All were postively related to the level of traditionalism of female early adolescent sex role behaviors.

DISCUSSION

Sex Role Attitudes

This study indicates that there are several factors which are important to the development of female early adolescent sex role attitudes. The finding that maternal employment is related to nontraditional attitudes reinforces the findings described in Montemayor and Clayton's review (1983). The present study's more important contribution is its implications for maternal employment as a proxy for a set of attitude variables, as suggested by Rodgon, Gralewski, and Hetzel (1977) and Rollins and White (1982). Although four of the five bivariate correlations related to mothers were significant, when they were put into the hierarchical multiple regression model, only the first, maternal employment, remained significant. It accounted for much of the same variance as did father's attitudes toward mother's work, the level of traditionalism

of the mother's sex role attitudes, and the interaction of the attitude variable with the amount of time that the daughter spent with her mother. This would indicate that maternal employment is a proxy for at least these attitudinal variables and possibly related others.

The significance of the Pearson correlation between father's attitude toward mother's work and the level of traditionalism of female early adolescent sex role attitudes is also important. It implies that the mother's employment is not the only influence here, but that other family member's feelings about maternal employment also influence the daughter, but in an indirect (second-order) way. This finding, along with the significant hierarchical multiple regression variable related to fathers level of sex role traditionalism in interaction with amount of time spent with the daughter imply that cross-parent influences are an important part of the sex role attitude development of female early adolescents.

This study found an inverse relationship between sex role attitudes of daughters and their mothers. The daughters were more nontraditional than their mothers. This is in contrast to Emmerich, Goldman, and Shore (1971). The reason for this difference is difficult to assess. It probably reflects the changes in societal norms in the twelve years in between studies.

As early adolescent girls became older, they were less traditional. This significant inverse relationship between chronological age and the traditionalism of female early adolescent sex role attitudes supported the work of Payne (1981). Russ and Lloyd (1982) were not supported.

## Sex Role Behaviors

The discussion on female sex role behavior development must focus on the significant correlations, since the hierarchical multiple regression model was not found to be significant. All of the relationships which were found to be significant involved the father. The traditionalism of the father's sex role attitudes, the time that the daughter spent with her father, and the father's assessment of his daughter's physical maturity, were all related to traditional sex role behaviors on the part of his daughter. These findings imply a strong cross-parent influence in the development of female early adolescent sex role behavior development.

## Theoretical Considerations

One of the major tenets of life span sex role theory is the need to examine development in relation to the life stage of the individual. The previous discussion supports this tenet of the necessity for life stage research.

The implications of the present study for Bronfenbrenner's (1979) theory of human development need to be limited to a specific kind of development: that of sex role attitudes and behaviors. Sex role development is so dominated by gender that it is difficult to generalize the findings to all humans; the following comments are for female early adolescent sex role attitude and behavior development only.

Bronfenbrenner's conceptualization of the environments is a useful and necessary one. The female model in this study had significant variables from both the exosystem and microsystem. Bronfenbrenner's hypotheses with regard to time and relationships and their relationship to learning are supported to the extent in this

research that they may be considered viable. One of the time variables was included as a significant variable in the female model. Both the variables related to time and relationships had probabilities at the .10 level, which implies that the model has merit and needs to be examined further.

This study points out that one of the major considerations of a researcher who would like to apply Bronfenbrenner's theory is the inclusion of human variables. The consistent significance of either chronological or pubertal age in this study implies that learning is an interaction between the early adolescents and their environments, but that human, or individual, variables need to be considered. Other individual traits that may be important to sex role development are temperament and hormonal levels, for example.

The last issue that needs to be considered relative to Bronfenbrenner is that of the top-down nature of influence on learning. The consistency with which more nontraditional sex role attitudes are found in the macro-, exo-, micro-, and human systems would imply that the macrosystem, for females, may be as pervasive as Bronfenbrenner suggest that it is.

Conclusion and Implications

Today's early adolescent females are very nontraditional in their sex role attitudes. Their behaviors are more mixed when examined in light of traditional sex roles. Behaviors are, however, much more traditional than attitudes.

Female early adolescent sex role attitude development seems to be a separate process from behavior development, with different influences. Sex role attitude development is a product of maternal and paternal influences in direct and indirect ways. Cross-parent

influence seems to be part of the process of sex role behavior development. Both types of sex role development need to be examined more extensively making cross-parent and second-order observations so that the complexities can be better understood.

Early adolescence is an important stage of youth development; the attitudes and behaviors learned during this stage of growth contribute to the attitudes and behaviors adopted later in life. In this study the youth report nontraditional attitudes, but traditional behaviors. Several trends which are likely to continue into the future are nontraditional for females: extensive service industries with high technology base, increasing percentage of women working outside the home during childbearing years, and increasing numbers of single female headed households with children. The young females attitudes would seem to be congruent with the projections for the future, but their behaviors are far less indicative of preparing for a nontraditional future. Parents, teachers, and family life professionals may want to examine ways in which families in their daily activities can better prepare young adolescents for their future roles. In particular fathers may need to explore ways that they can enhance the development of their daughters for future roles.

FIGURE 1:

OVERVIEW OF RESEARCH

Predictor Variables

| Human System Variables | Microsystem Variables | Exosystem Variables |
|---|---|---|
| Chronological age | Interaction: Level of parental traditionalism sex role attitudes with amount of time spent with child | Maternal employment |
| Mother's perception of child's pubertal age | Interaction: Level of traditionalism of parental sex role attitudes with level of closeness child reports for parent | Duration of maternal employment |
| Father's perception of child's pubertal age | | Father's attitude toward mother's work |

Outcome Variables

Level of traditionalism of sex role attitudes

Level of traditionalism of sex role behaviors

TABLE 1:

Hierarchical Multiple Regression Analyses with
Female Early Adolescent Sex Role Attitudes
as the Dependent Variable

| Independent Variables | Significance | $R^2$ | $R^2$ Change | r | Subsystem $R^2$ |
|---|---|---|---|---|---|
| **Exosystem** | | | | | .09440 |
| Maternal employment | .01 | .07535 | .07535 | -.27451 | |
| Duration of maternal employment | .74 | .07659 | .00124 | -.10907 | |
| Father's attitude toward mother's work | .22 | .09440 | .01781 | -.29822 | |
| **Microsystem** | | | | | .06638 |
| Interaction: (Mother's sex role attitudes with amount of time) | .95 | .09445 | .00005 | -.03843 | |
| Interaction: (Father's sex role attitudes with amount of time) | .10 | .12593 | .03148 | -.16556 | |
| Interaction: (Mother's sex role attitudes with child's level of closeness) | .21 | .14432 | .01839 | .00797 | |
| Interaction: (Father's sex role attitudes with child's level of closeness) | .23 | .16078 | .01646 | -.11600 | |
| **Human** | | | | | .05751 |
| Chronological age | .03 | .21448 | .05370 | -.28501 | |
| Mother's perception of pubertal age | .88 | .21472 | .00024 | -.20100 | |
| Father's perception of pubertal age | .57 | .21829 | .00357 | -.23479 | |

Overall F - ratio 2.01 Significance 0.044

TABLE 2:

Hierarchical Multiple Regression Analyses with
Female Early Adolescent Sex Role Behaviors
as the Dependent Variable

| Independent Variables | Significance | $R^2$ | $R^2$ Change | r | Subsystem $R^2$ |
|---|---|---|---|---|---|
| **Exosystem** | | | | | .00789 |
| Maternal employment | .90 | .00020 | .00020 | -.01408 | |
| Duration of maternal employment | .44 | .00754 | .00754 | -.08095 | |
| Father's attitude toward mother's work | .87 | .00789 | .00035 | -.01288 | |
| **Microsystem** | | | | | .05384 |
| Interaction: (Mother's sex role attitudes with amount of time) | .33 | .01975 | .01186 | .11816 | |
| Interaction: (Father's sex role attitudes with amount of time) | .11 | .05122 | .03147 | .18079 | |
| Interaction: (Mother's sex role attitudes with child's level of closeness) | .48 | .05741 | .00619 | .08552 | |
| Interaction: (Father's sex role attitudes with child's level of closeness) | .56 | .06170 | .00430 | .14862 | |
| **Human** | | | | | .08222 |
| Chronological age | .75 | .06306 | .00135 | -.00536 | |
| Mother's perception of pubertal age | .14 | .11537 | .05231 | .17146 | |
| Father's perception of pubertal age | .13 | .14393 | .02856 | .23814 | |

Overall F - ratio 1.21 Significance 0.299

**TABLE 3:**

**Pearson Correlation Coefficients for**

**Female Early Adolescent Variables**

| | Sex Role Attitudes | Sex Role Behaviors |
|---|---|---|
| Maternal Employment (DEMOM80) | -.20** | .05 |
| Duration of maternal employment (DEMOM81) | -.11 | -.02 |
| Fathers' attitudes toward Mothers' work (FATIMW) | -.34*** | .01 |
| Mothers' sex role attitudes (SCMSXATG/B) | -.14* | .09 |
| Fathers' sex role attitudes (SCDSXATG/B) | -.11 | .18* |
| Interaction : (Level of traditionalism of parental sex role attitudes with amount of time parent spends with child) | | |
| Moms (SCMINTG/B) | -.16* | .11 |
| Dads (SCDINTG/B) | -.11 | .20* |
| Interaction: (Level of traditionalism of parental sex role attitudes with level of closeness child feels for parent) | | |
| Moms (SCMRESXG/B) | -.13 | .07 |
| Dads (SCDRESXG/B) | -.11 | .12 |
| Chronological Age | -.18* | .05 |
| Mothers' perception of child's pubertal age | -.10 | .13 |
| Fathers' perception of child's pubertal age | -.14 | .21* |

* indicates $p > .05$
** indicates $p > .01$
*** indicates $p > .001$

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